

In the United States Patent and Trademark Office

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| Appellants: | John Patrick Costello et al. | Docket No.: | 19,961 |
| Serial No.: | 10/813,873 | Group: | 1791 |
| Confirmation No: | 5578 | Examiner: | Osele, Mark A |
| Filed: | March 31, 2004 | Date: | February 16, 2011 |
| For: | TWO-STEP REGISTERED PRINTING | | |

Brief on Appeal to the Board of Patent Appeals and Interferences

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 41.37 Appellants respectfully submit this Brief in support of their Appeal of the **Final Rejection** of claims 14-21 and 25 which was mailed on October 14, 2010, followed by an Amendment After Final dated December 16, 2010, followed by an Advisory Action dated January 3, 2011.

On January 13, 2011, Appellants, pursuant to 37 C.F.R. 41.31, faxed a timely Notice of Appeal which was received in the USPTO on January 13, 2011. Thus, this Brief is timely filed on February 16, 2011.

Appellants had previously paid a \$540 fee (fee code 1402) for filing an Appeal Brief in this case on January 20, 2010. Since prosecution was reopened prior to a decision on the merits by the Board of Patent Appeals and Interferences, this fee should be applied to the current appeal pursuant to MPEP 1207.04.

Real Party in Interest

The present Application has been assigned to Kimberly-Clark Worldwide, Inc., which is the real party in interest.

Related Appeals and Interferences

To the knowledge of Appellants, Appellants' legal representative, or assignee, there are no other known related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 14-21 and 25 are currently pending in the application and have been finally rejected. The claims on appeal are identified as claims 14-21 and 25. Claims 1-13 and 22-24 were previously canceled. The appealed claims are recited in the Claims Appendix of this Brief.

Status of Amendments

An Amendment After Final Rejection was mailed December 16, 2010 to overcome a rejection under 35 U.S.C. 112 by correcting an error in the claimed speed of the outer cover in independent claim 14. The Amendment After Final Rejection was entered and the appealed claims reflect the corrected claim language.

Summary of Claimed Subject Matter

The following summary correlates claim elements to specific embodiments described in the application specification, but does not in any manner limit claim interpretation. Rather, the following summary is provided only to facilitate the Board's understanding.

The subject matter of independent claim 14 is directed to a method of printing an outer cover for an absorbent article. (See e.g., page 2, lines 21-23.) The method includes: supplying a moving first substrate (see **101**, Figure 1) comprising a film to a first printing operation (see **37**, Figure 1 and page 3, lines 18-20); contact printing at least one first graphic (see **80**, Figure 1) on the first moving substrate in the first printing operation using a gravure roll printer or flexographic printer (see e.g., page 3, lines 20-21); laminating a second moving substrate to the first moving substrate to form an outer cover, wherein the second moving substrate includes a nonwoven web and the outer cover defines a width (see e.g., page 3, lines 22-24); supplying the outer cover with the first graphic to a second printing operation (see

39, Figure 1) on a manufacturing line for absorbent articles (see e.g., page 3, line 24 and page 8, lines 20-22); non-contact printing at least one second graphic (see **82**, Figure 1) on the outer cover in the second printing operation on the manufacturing line for absorbent articles using a wax jet printer, ink jet printer, bubble jet printer, or laser jet printer, the first graphic spanning at least 60% of the width of the outer cover and being visible to the naked eye, the second graphic being positioned within the center third of the width of the outer cover and being visible to the naked eye (see e.g., page 3, lines 24-29); and joining the outer cover with an absorbent and a liner to produce an absorbent article (see e.g., page 3, lines 29-30).

The subject matter of independent claim 18 is directed to a method of minimizing substrate printing waste (See e.g., page 4, line 4.) The method includes: supplying a moving substrate (see **101**, Figure 1) to a first converting operation (see **37**, Figure 1 and page 4, line 5); printing a plurality of absence advertisements (see page 20, line 34 through page 21, line 13 and **92**, Figure 7) on the moving substrate using a contact printer (see e.g., page 4, lines 5-6); supplying the moving substrate with the absence advertisements to a second converting operation (see **39**, Figure 1 and page 4, lines 6-7); and at least partially overprinting second graphics (see **82**, Figure 1) on at least some of the absence advertisements using a non-contact printer, where a failure to print a second graphic on an absence advertisement results in the absence advertisement remaining visible on the substrate (see e.g., page 4, lines 7-10).

The subject matter of independent claim 21 is directed to a method of printing an outer cover for an absorbent article. (See e.g., page 4, line 15.) The method includes the steps of: laminating a first substrate comprising film to a second substrate comprising a nonwoven to form an outer cover, the outer cover defining a film side, a nonwoven side opposite the film side, and a width (see e.g., page 4, lines 15-18); supplying the outer cover to a printing process and contact printing at least one first graphic on the nonwoven side (see e.g., page 4, lines 18-19); supplying the outer cover to a converting operation, the converting operation combining the outer cover with an absorbent assembly to form an absorbent article (see e.g., page 4, lines 19-21); and non-contact printing at least one second graphic on the nonwoven side in the converting operation, the first graphic spanning at least 60% of the width of the outer cover and being visible to the naked eye, the second graphic being positioned within the center third of the width of the outer cover, and both first and second graphics being visible to the naked eye (see e.g., page 4, lines 21-25).

Grounds of Rejection to be Reviewed on Appeal

Ground 1

Claims 14-17, 21 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Publication No. 2000-000266 to Masaru (hereinafter “Masaru”), in view of U.S. Patent No. 6,129,264 to Travers et al. (hereinafter “Travers”), U.S. Patent Publication No 2004/0231539 to Clinton (hereinafter “Clinton”), or U.S. Patent No. 6,343,550 to Feesler (hereinafter “Feesler”), U.S. Patent No. 5,503,076 to Yeo (hereinafter “Yeo”), U.S. Patent No. 6,732,778 to Machida et al. (hereinafter “Machida”) and U.S. Patent No. 6,297,424 to Olson et al. (hereinafter “Olson”).

Ground 2

Claims 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaru in view of Travers, Clinton or Feesler, in further view of U.S. Patent Publication No 2005/0149389 to Odorzynski (hereinafter “Odorzynski”) and still further in view of U.S. Patent No. 6,307,119 to Cammarota et al. (hereinafter “Cammarota”).

Argument

As set forth in the specification in the paragraph bridging pages 1 and 2, Appellants have determined that when printing graphics on the outer cover of absorbent articles at speeds over 100 feet per minute, non-contact printing methods do not perform well unless properly controlled and limited to relatively small areas. As such, Appellants have overcome these problems by combining contact printing and non-contact printing in a particular manner to provide absorbent articles with desirable graphic images. More specifically, as claimed in one aspect, Appellants use contact printing to provide a first graphic on a first substrate prior to laminating the first substrate to a second substrate to form an outer cover. The first graphic spans at least 60% of the width of the outer cover. A second graphic is applied within the center third of the outer cover, at speeds over 100 feet per minute, using non-contacting printing. The resulting outer cover is joined with an absorbent and a liner to produce an absorbent article. While various printing methods are individually known, the teachings of the prior art do not suggest using contact printing in combination with non-contact printing in the manner claimed by Appellants and found particularly useful for producing absorbent articles. More specifically, the prior art does not suggest using contact printing to broadly cover the substrate with one pattern, while non-

contact printing is used to apply a second pattern that is more narrowly and centrally focused on the substrate.

Claims 14-17, 21 and 25 Are Patentable Over the Teachings of Masaru, Travers, Clinton, Feesler, Yeo, Machida and Olson.

Turning to the specific grounds of rejection, claims 14-17, 21 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Masaru in view of Travers, Clinton or Feesler, Yeo, Machida and Olson. Masaru discloses the use of ink jet printing to provide graphics on absorbent articles. Travers discloses a multiple envelope assembly in which non-variable indicia are provided using contact printing (flexographic printing) and variable indicia are provided using non-contact printing (ink jet printing). Clinton discloses a particular design for flexographic printing surfaces which utilizes two different materials, one of which is an ink accepting material and the other is an ink repelling material. Feesler discloses a flexographic printing apparatus and method. Yeo discloses multi-color printed nonwoven/film laminates for absorbent articles in which the inks not only provide desirable graphics, but also serve to bond the film and nonwoven webs together. It is disclosed that flexographic and ink jet printing methods work better than rotogravure equipment, since multi-colored rotogravure printing requires multiple printing rolls, which can cause processing problems associated with the transfer of one colored ink to subsequent printing rolls. Machida discloses a method for making an absorbent article in which the position of a printed pattern on a continuous substrate is coordinated with the cutting of the substrate to form the absorbent article. Olson discloses absorbent articles having permanent graphics in combination with wetness indicating “active” graphics that disappear when contacted with urine. The graphics can be “printed, sprayed or otherwise applied” (col. 8, lines 63-65) “by any suitable technique” (col. 9, lines 49-52). The active graphics can be positioned closer to the transverse centerline of the product than the character graphic (col. 7, lines 62-64) so they are more likely to be contacted with urine. No distinction is made regarding the method of application of the two types of graphics.

It is asserted that it would be obvious “to use contact printing followed by non-contact printing in the method of Masaru because Travers et al. teaches that variable graphics are more easily changed using non-contact printing so the use of contact printing can print non-variable graphics while downstream non-contact printing can print variable graphics depending on the product being made (column 3, lines 4-14, Column 7, lines 10-37) while Clinton and Feesler teach that flexographic printing has advantageous over other printing methods.” It is further asserted that it would be obvious “to print

the first and second graphics of the method of the references as combined on any combination of the non-woven layer and film layer, whichever is desired by the film manufacturer, distributor, or customer, because Yeo teaches that these are all functionally equivalent alternate expedients.” It is further asserted that it would have been obvious “to perform the second printing step of the references as combined on a manufacturing line for absorbent articles because Machida et al. teaches that this is where printing is conventionally performed.” It is further asserted that it would be obvious “to perform this printing operation at this stage so the printed design could be altered mid run if desired rather than having to replace a roll of preprinted web material with a different roll of preprinted web material. It is conventional to operate disposable absorbent article manufacturing line at 100 feet per minute or greater.” It is further asserted that it would be obvious “to place the graphics of method of the references as combined in the positions shown by Olson et al. to permit better visibility of the graphic for the wearer and to improve appearance of the absorbent article.” This rejection is respectfully traversed.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143. The application of the “teaching, suggestion, or motivation” (TSM) test is not “rigid.” However, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) (emphasis added).

In this case, the primary reference, Masaru, discloses printing a graphic image on the outer cover of an absorbent article using ink jet printing, which is a non-contact printing method. Masaru appears to teach that ink jet printing is superior to other types of printing. As such, Masaru uses ink jet printing exclusively (see paragraphs 14-16), which effectively teaches away from Appellants’ claimed method, which uses a combination of contact printing and non-contact printing. Therefore, to combine the teachings of Masaru with Travers as set forth in the rejection is inconsistent with the teachings of Masaru since Masaru teaches that ink jet printing is superior to other types of printing. Following the teachings of Masaru, one of ordinary skill in the art of making absorbent articles would simply use ink jet printing for all of the graphics.

While Travers discloses a combination of flexographic printing (contact printing) with ink jet printing (non-contact printing) for making multiple envelope assemblies (not absorbent articles). One of ordinary skill in the art would not look to the teachings of Travers for guidance on printing absorbent article components because, unlike the envelopes of Travers, the concept of having non-variable graphics and variable graphics is inapplicable to absorbent articles, which normally simply have non-variable graphics. In addition, there is no suggestion that the contact-printed graphic span is at least 60% of the width of the substrate while the non-contact printed graphic is positioned within the center third of the width of the substrate as claimed by Appellants. In fact, setting aside the fact that Travers is not concerned with absorbent articles, the ink jet printed matter of Travers is placed well outside the center third of the substrate. For example, see Figure 1, first envelope 11, “NAME XXX”, which is at the top edge of the envelope. Also see Figure 2 “DEAR NAME XXX” and “NAME XXX”, both of which are at the top edges of their respective substrates. It is clear that the combined teachings of Travers and Masaru do not appreciate the problem that Appellants have overcome, namely the limited use of non-contact printing on absorbent article substrates at high speeds (100 feet per second or greater). As such, the teachings of these references do not suggest the solution to the problem as claimed.

Further in regard to the relative placement of the contact and non-contact printed graphics of Appellants’ invention, the teachings of Olson are relied on to suggest that it would be obvious to provide different graphics in different relative positions as claimed. However, this suggestion ignores the fact that Olson does not suggest that the two different graphics in question (“permanent” and “active”) be applied by different methods, much less by different printing methods as claimed by Appellants.

Because of the shortcomings in the teachings of the cited references as discussed above, Appellants believe that the grounds for rejection are based on *impermissible hindsight*. The Court in KSR held that a fact finder should be aware of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning (KSR, 127 S.Ct., at 1742). It seems clear that the grounds for rejection are utilizing the teachings of Appellants in an attempt to modify Masaru with Travers, Clinton, Feelser, Yeo, Machida and Olson to allegedly arrive at Appellants’ invention. Appellants respectfully note that MPEP §§ 2142 and 2143 require that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellants’ disclosure. *In re Vaeck*, 947 F.2d 4899 (Fed. Cir. 1991). The mere

fact that the prior art may be modified in the manner suggested by the Office does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Gordon*, 733 F.2d at 902, 221 USPQ at 1127. *In re Fritch*, 23 USPQ 2nd 1780, 1783-1784 (Fed. Cir. 1992). It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Gorman*, 933 Fed. 2nd 982, 987, 18 USPQ 2d 1885, 1888 (Fed. Cir. 1991). *In re Fritch*, 23 USPQ 2nd 1780 at 1784 (Fed. Cir. 1992).

In addition, the Court in *KSR* held that a patent composed of several elements is not proven to be obvious merely by demonstrating that each of the elements was independently known in the prior art, which is exactly the case with the rejections of the present invention (*KSR*, 127 S.Ct., at 1741). The Court further emphasized the importance of identifying a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does, which has not been reasonably provided, particularly since Masaru teaches away from the use of any other type of printing besides contact printing. Thus, any suggestion to modify Masaru with the teachings of Travers based on the knowledge gained from Appellants is improper, regardless of the teachings of Clinton, Feesler, Yeo, Machida and Olson.

It is respectfully recognized that any judgment on obviousness is, to some extent, necessarily a reconstruction based upon hindsight reasoning, provided it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from Appellants' disclosure. However, as discussed above, it has not been shown that Appellants' claimed invention was within the level of ordinary skill at the time the claimed invention was made based on the teachings of the cited references (i.e., Masaru, Travers, Clinton, Feesler, Yeo, Machida and Olson), particularly since the teachings of Masaru and Travers are inconsistent as applied in the grounds for rejection. For example, the cited references do not appreciate the limitations of non-contact printing absorbent article substrates at high speeds, which Appellants have found can be overcome by confining the non-contact printed matter to the central area of the previously contact printed graphics. For at least these reasons, it is believed that the ground for rejection is improperly based on hindsight in an attempt to arrive at Appellants' invention by picking and choosing certain elements of Appellants' invention from seven references.

For at least these reasons, it is believed that the subject matter of claims 14-17, 21 and 25 is not obvious from the teachings of the cited prior art. Appellants therefore respectfully request that the Board reverse this rejection.

Claims 18-20 Are Patentable Over the Teachings of Masaru, Travers, Clinton, Feesler, Odorzynski and Cammarota.

Claims 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Masaru in view of Travers, Clinton or Feesler, Odorzynski and Cammarota. It is asserted that it would have been obvious to use contact printing followed by non-contact printing in the method of Masaru because Travers teaches that variable graphics are more easily changed using non-contact printing, so the use of contact printing can print non-variable graphics while downstream non-contact printing can print variable graphics, and Clinton and Feesler teach that flexographics has advantages over other printing methods.

However, this basis for rejection is respectfully traversed for the same reasons discussed above with regard to Claims 14-17, 21 and 25. In particular, the combination of contact printing with non-contact printing taught by Travers is not properly combinable with the teachings of Masaru, since Masaru teaches that ink jet printing is advantageous over other types of printing when providing graphics on the outer cover of absorbent products and there is no recognized need in the prior art to provide two different types of printing in the manufacture of absorbent articles. As above, the teachings of the other cited references do not overcome this fundamental shortcoming of the two main references. It is therefore believed that this basis for rejection is not proper.

In addition, Appellants' claim 18 requires, *inter alia*, an "absence advertisement." It is asserted that "any known advertising technique, including absence advertisements, would be envisioned by one of ordinary skill in the art from the disclosure of Odorzynski which teaches a wide array of advertising techniques and suggests that others are possible." However, no evidence has been provided that the teaching of Odorzynski would extend to "absence advertisements" as claimed. As defined in Appellants' specification at the paragraph bridging pages 20 and 21, an "absence advertisement" is a graphic that conveys the message that an additional graphic is missing. Odorzynski does not teach or suggest advertisements that indicate that a graphic is missing. In addition, Appellants disclosed that an absence advertisement creates a "backup" system for printing which provides the unique advantage of eliminating product waste, and further provides the advantage of transforming potentially defective product into consumable product via a "game" (specification page 20, line 34 – page 22 line 1).

The rejection also combines Cammarota to allegedly teach a graphic overprinted on a graphic. However, the addition of Cammarota does not overcome the deficiencies of Masaru, Travers, Clinton, Feesler, and Odorzynski as previously discussed.

For at least these reasons, it is believed that the subject matter of claims 18-20 is not obvious in light of the teachings of the cited prior art and Appellants respectfully request that the Board reverse this rejection.

Conclusion

For the reasons set forth in the above arguments, it is respectfully submitted that the rejections should be **reversed**. Accordingly, it is respectfully submitted that claims 14-21 and 25 are in allowable condition.

Appellants had previously paid a \$540 fee (fee code 1402) for filing an Appeal Brief in this case on January 20, 2010. Since prosecution was reopened prior to a decision on the merits by the Board of Patent Appeals and Interferences, this fee should be applied to the current appeal pursuant to MPEP 1207.04. Any additional prosecutorial fees which are due may be charged to deposit account number 11-0875

The undersigned may be reached at: (920) 721-8863

Respectfully submitted,

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Serial No.: 10/813,873

ELECTRONIC FILING CERTIFICATE

I hereby certify that this correspondence and all attachments and any fee(s) are being electronically transmitted via the internet to the United States Patent and Trademark Office using the Electronic Filing System on February 16, 2011.

./JudithMAnderson/

Signature

Judith M. Anderson

Typed Name

Claims Appendix – Listing of the Claims On Appeal

The claims on appeal are:

- 14.** A method of printing an outer cover for an absorbent article, comprising:
- supplying a moving first substrate to a first printing operation, the first moving substrate comprising a film;
 - contact printing at least one first graphic on the first moving substrate in the first printing operation using a gravure roll printer or flexographic printer;
 - laminating a second moving substrate to the first moving substrate to form an outer cover, the second moving substrate comprising a nonwoven web and the outer cover defining a width;
 - supplying the outer cover with the first graphic to a second printing operation on a manufacturing line for absorbent articles, said outer cover moving at a speed of 100 feet or greater per minute;
 - non-contact printing at least one second graphic on the outer cover in the second printing operation on the manufacturing line for absorbent articles using a wax jet printer, ink jet printer, bubble jet printer, or laser jet printer, the first graphic spanning at least 60% of the width of the outer cover and being visible to the naked eye, the second graphic being positioned within the center third of the width of the outer cover and being visible to the naked eye; and
 - joining the outer cover with an absorbent and a liner to produce an absorbent article.
- 15.** The method of claim **14**, wherein the absorbent article has a front waist region, a back waist region, and a crotch region connecting the front waist region and the back waist region, and the second graphic is positioned within the front waist region.
- 16.** The method of claim **14**, wherein the absorbent article has a front waist region, a back waist region, and a crotch region connecting the front waist region and the back waist region, and the second graphic is positioned within the back waist region.

17. The method of claim **14**, wherein the absorbent article has a front waist region, a back waist region, and a crotch region connecting the front waist region and the back waist region, further comprising two or more second graphics, at least one second graphic positioned within the front waist region and at least one second graphic positioned within the back waist region.

18. A method of minimizing substrate printing waste, comprising:

supplying a moving substrate to a first converting operation;

printing a plurality of absence advertisements on the moving substrate using a contact printer;

supplying the moving substrate with the absence advertisements to a second converting operation;

at least partially overprinting second graphics on at least some of the absence advertisements using a non-contact printer, wherein a failure to print a second graphic on an absence advertisement results in the absence advertisement remaining visible on the substrate.

19. The method of claim **18**, further comprising joining the substrate to an absorbent and to a liner to form an absorbent article, the absence advertisement forming part of an interactive game or contest involving the user of the absorbent article.

20. The method of claim **18**, further comprising joining the substrate with an absorbent and a liner to form an absorbent article, the absence advertisement conveying contact information to a consumer of the absorbent article.

21. A method of printing an outer cover for an absorbent article, comprising:

laminating a first substrate comprising film to a second substrate comprising a nonwoven to form an outer cover, the outercover defining a film side, a nonwoven side opposite the film side, and a width;

supplying the outer cover to a printing process and contact printing at least one first graphic on the nonwoven side,

supplying the outer cover to a converting operation, the converting operation combining the outer cover with an absorbent assembly to form an absorbent article;

non-contact printing at least one second graphic on the nonwoven side in the converting operation, the first graphic spanning at least 60% of the width of the outer cover and being visible to the naked eye, the second graphic being positioned within the center third of the width of the outer cover, and both first and second graphics being visible to the naked eye.

25. The method of claim **14** wherein the second graphic imparted by the non-contacting printing operation comprises two or more colors.

Evidence Appendix

None

K-C Docket No.: 19,961
Serial No.: 10/813,873

Related Proceedings Appendix

None